CLAIMS

- A protein comprising the amino acid sequence of SEQ ID NO: 2, or a protein comprising the amino acid sequence of SEQ ID NO: 2 in which one or more amino acids are replaced, deleted, added, and/or inserted, and being functionally equivalent to the protein comprising the amino acid sequence of SEO ID NO: 2.
 - The protein of claim 1, wherein the protein comprises the amino acid sequence of SEO ID NO: 2.
- 3. A DNA encoding the protein of claim 1.

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- The DNA of claim 3, wherein the DNA comprises the nucleotide sequence of SEQ ID NO: 1.
- 5. A DNA encoding the protein of claim 1 or functionally equivalent with these protein, the DNA hybridizing under stringent conditions with DNA comprising the nucleotide sequence of SEQ ID NO: 1.
- 6. A DNA hybridizing specifically with the DNA of claim 4 and having a chain length of at least 15 nucleotides.
- 7. An antisense DNA against the DNA of claim 4 or a portion thereof.
- A vector comprising the DNA of any one of claim 3, claim 4 and claim 5.
- 9. A transformant expressibly carrying the DNA of any one of claim 3, claim 4 and claim 5.
- 10. A method for producing the protein of claim 1, the method comprising culturing the transformant of claim 9 and collecting an expression product of the DNA of any one of claim 3, claim 4 and claim 5.
- 11. A reagent for the detection of mesangial cells comprising the DNA of claim 6.
- 12. An antibody binding to the protein of claim 1.
- 30 13. The antibody of claim 12, wherein the antibody recognizes a portion of a protein comprising an amino acid sequence selected from the amino acid sequence of SEQ ID NO: 2.
 - 14. The antibody of claim 13, wherein the antibody is a monoclonal antibody.
- 35 15. An immunoassay method for measuring the protein of claim 2 or a fragment thereof based on immunological binding of the antibody

- of any one of claim 13 or claim 14 to the protein of claim 2 or a fragment thereof.
- 16. A reagent for detecting the mesangial cell, the reagent comprising the antibody of any one of claim 12 to claim 14.
- 17. A method for detecting mesangial proliferative nephropathy, the method comprising measuring the protein of claim 2 or a fragment thereof contained in a biological sample and comparing the measured value with that obtained from a normal sample.

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- 18. A transgenic nonhuman vertebrate in which the expression level of a gene encoding Meg-3 is modified.
- 19. The transgenic nonhuman vertebrate of claim 18, wherein the nonhuman vertebrate is a mouse.
- 20. The transgenic nonhuman vertebrate of claim 19, wherein the nonhuman vertebrate is a knockout mouse in which the expression of a gene encoding Meg-3 is inhibited.